

DISQUALIFIED ART

Applicant respectfully requests that Tran et al. (U.S. Patent 6,731,564) be disqualified as prior art under 35 U.S.C. § 103(c). Tran et al. was assigned to Texas Instruments Incorporated and recorded on March 18, 2003 on frame 013888 and reel 0249. Tran et al. and the claimed invention were, at the time of the claimed invention assigned to Texas Instruments Incorporated as required in 35 U.S.C. § 103(c)(1). Accordingly, Tran et al. is disqualified as prior art.

REMARKS

Claims 1-25 are pending. Claims 1, 7-9, 14-16, 18, and 20 have been amended. Claims 7, 9, 14, 15, and 20 have been amended to be independent of any rejected base claim and remain unaltered in scope. Claims 1, 8, 16, and 18 have been amended for clarity and do not comprise new matter. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

Applicants respectfully include a petition for revival of this application on the grounds that the delay in reply to the Office Action of April 4, 2004 was unintentional. The entire delay in filing the required reply from the due date for the reply until the filing of this petition pursuant to CFR § 1.137(b)(3) was unintentional. A fee for this petition to revive is hereby authorized to be charged against the deposit account listed below.

I. OBJECTION TO THE SPECIFICATION

The specification was objected to as failing to provide proper antecedent basis for the claimed subject matter.

The specification has been amended to overcome this objection without entering new matter. Additionally, it is suggested that sufficient support exists in the specification for claim 21. For example, leakage current is sunk by other devices/paths, such as a suspend voltage regulator. (Page 16, lines 25-27).

II. REJECTION OF CLAIMS 25-26 UNDER 35 U.S.C. § 112

Claims 1-15 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1 and 8 have been amended as suggested by the Examiner. Accordingly, withdrawal of this rejection is respectfully requested.

III. REJECTION OF CLAIMS 1, 5-6, 8, 11-13, 16-19, 21-23 and 25 UNDER 35

U.S.C. § 102(e)

Claims 1, 5-6, 8, 11-13, 16-19, 21-23 and 25 were rejected under 35 U.S.C. § 102(e) as being anticipated by Tran et al. (U.S. Patent No. 6,731,564). Withdrawal of the rejection is respectfully requested for at least the following reasons.

A claim is anticipated by a reference only if it teaches each and every element of the claim. Tran et al. fail to teach each and every element of the claims and, therefore, fail to anticipate the claims.

Claim 1 includes a gate-sinking voltage keeper component that controllably connects an array VSS voltage input of the memory array to the sinking suspend voltage regulator, which is not taught by Tran et al.

The Office Action relies on Tran et al. to teach a sinking suspend voltage regulator (not shown) that generates a sinking suspend voltage (VBB in figure 3A). Applicant shows below that Tran et al. fail to teach a sinking suspend voltage regulator as recited in claim 1 and that, therefore, Tran et al. fail to anticipate claim 1.

Tran et al. disclose embodiments wherein current leakage is reduced by reducing the level of current leakage during standby mode. (Column 3, lines 4-7). In one embodiment, the wordline driver 30 of Fig. 2 is isolated to reduce current leakage by blocking the leakage paths between wordline 36 and nodes 60 and 64. (Column 3, lines 52-55). Additional details of the wordline driver 30 are provided in Fig. 3A which shows a logic diagram of one embodiment of the wordline driver 30 shown in Fig. 2. (Column 3, lines 58-59).

The wordline driver 30 of Tran et al. does disclose a retention voltage VBB from a retention power source, but the retention power source supplies the retention voltage VBB to the wordline driver 30 *instead of to an array VSS input as recited in claim 1*. Therefore, Tran et al. fail to teach each and every element of claim 1. Claims 5-6, 8, and 11-13 depend from claim 1 and are, also, not anticipated by Tran et al. for at least the above reasons.

Claim 16 includes biasing one or more inputs of a memory array to a sinking suspend voltage by one or more gate-sinking voltage keeper components, wherein the one or more inputs include a VSSA input, which is not taught by Tran et al.

Tran et al. fail to teach biasing a VSSA input of a memory array to a sinking suspend voltage by one or more gate-sinking voltage keeper components. Tran et al. do teach a circuit in Fig. 3C that can be used to raise VSB to VBB in retention mode, but this circuit is not a gate-sinking voltage keeper component as in claim 16.

Furthermore, Tran et al. fail to teach *sinking at least a portion of generated leakage current from the memory array by the one or more gate-sinking voltage keeper components* as in claim 16. Tran et al. merely disclose raising gates of transistors 108 and 110 to a level sufficient to turn off transistors 108 and 110 without causing excessive gate leakage instead of sinking at least a portion of the leakage current by the one or more gate-sinking voltage keeper components as in claim 16. Accordingly, Tran et al. fail to anticipate claim 16. Claims 17-19 and 21-22 depend from claim 16 and are not anticipated by Tran et al. for at least the above reason. Claim 23 is also not taught by Tran et al. for the above reasons. Claim 25 depend from claim 23 and, therefore, is also not taught by Tran et al.

Accordingly, withdrawal of this rejection of claims 1, 5-6, 8, 11-13, 16-19, 21-23 and 25 is respectfully requested.

IV. REJECTION OF CLAIMS 2-4 UNDER 35 U.S.C. § 103(a)

Claims 2-4 were is rejected under 35 U.S.C. § 103(a) as being unpatentable over Tran et al. (U.S. Patent 6,731,564) in view of Houston (U.S. Patent 5,615,162). Withdrawal of the rejection is respectfully requested for at least the following reason.

Tran et al. qualifies as art only under 35 U.S.C. § 102(e). Tran et al. is and the claimed invention were, at the time of the claimed invention owned by the same person or subject to an obligation of assignment to the same person as specified in 35 U.S.C. § 103(c)(1). Accordingly, Tran et al. is disqualified as prior art. Therefore, withdrawal of this rejection for at least the above reasons is respectfully requested.

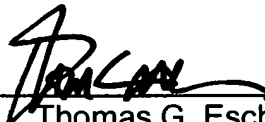
V. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 20-0668, TI-35610.

Respectfully submitted,
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CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop AF, Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: December 15, 2005


Christine Gillroy